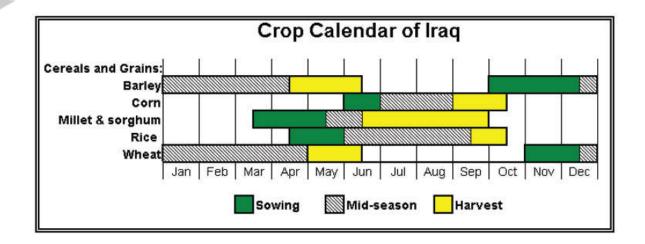
FAS – Office of Global Analysis (OGA) United States Department of Agriculture (USDA) International Operational Agriculture Monitoring Program



May Summary (June pre-lockup report)

May 31st, 2008

- 1. Production for MY 2008/09 winter grains is forecasted to be lower than the previous year. Production decreases are related to late rainfall during the start of the winter grains season combined with below normal precipitation throughout the remainder of the season. In addition, below normal temperatures during germination and above normal temperatures during peak growth adversely affected the winter grains crop. The forecast is supported by historical agro-meteorological data, MODIS Normalized Difference Vegetation Index (NDVI) time-series data, and high to moderate resolution satellite imagery acquired during the current winter grains season. The most significant decreases in winter grains production are expected in the northern rainfed governorates. Decreases are also expected in the central and southern governorates.
- 2. Cumulative precipitation during the MY 2008/09 winter grains season remained lower than the previous year and significantly lower than normal (Figure 1).
- 3. Regional MODIS time series data showed that NDVI for MY 2008/09 was significantly lower than the previous market year, and well below the 9-year average (Figure 2). A geographical representation of the data is provided in conjunction with SPOT VEG NDVI data (Figure 3).
- 4. NDVI change analysis conducted on AWiFS IRS P-6 data was used to show crop harvest between early April and late May, 2008. The analysis showed that most governorates have started harvesting (Figure 4). The estimated area of change is ~ 850,000 hectare (* Note: this number is likely to change as harvesting progresses into mid-June).



FAS – Office of Global Analysis (OGA) United States Department of Agriculture (USDA) International Operational Agriculture Monitoring Program Forecast

Change from 5-Year Average

Region	eat Area Fo	2002/03	2003/04	2004/05	(Willion Freetares)				E.M.	Disc.
					2005/06	2006/07	2007/08	2008/09	5-Year Average	5-Year Avg
North	Arbil	0.133	0.235	0.099	0.117	0.127	0.120	0.017	0.121	-85.6%
	Dahuk	0.122	0.129	0.098	0.102	0.091	0.100	0.326	0.095	-72.3%
	As Sulaymaniyah	0.163	0.109	0.070	0.153	0.120	0.120	0.370	0.115	-39.2%
	Ninawa	0.751	0.450	0.613	0.551	0.489	0.464	0.327	0.478	-94.3%
Central	At Ta'min	0.179	0.183	0.160	0.195	0.141	0.205	0.104	0.167	-37.9%
	Diyala	0.063	0.094	0.087	0.109	0.113	0.106	0.379	0.093	-15.0%
	Salah ad Din	0.110	0.125	0.107	0,110	0.108	0.107	0,394	0.109	-13.5%
	Baghdad	0.043	0.055	0.043	0.060	0.059	0.048	0.053	0.052	2.9%
	Babil	0.047	0.083	0.049	0.068	0.068	0.065	0.364	0.064	1.4%
	Wasit	0.165	0.159	0.148	0.166	0.157	0.164	0.148	0.158	-6.4%
	Al Qadisiyah	0.058	0.065	0.093	0.094	0.095	0.092	0.090	0.084	7.7%
	Karbala	0.006	0.005	.0.006	0.007	0.004	0.002	0.304	0.005	-10.0%
	Al Anbar	0.036	0.033	0.043	0.035	0.056	0.057	0.044	0.043	1.1%
	An Najaf	0.046	0.045	0.046	0.048	0.045	0.050	0.043	0.046	-7.6%
	Al Muthanna	0.006	0.017	0.018	0.012	0.012	0.011	0.312	0.013	-3.4%
South	Dhi Qar	0.020	0.020	0.032	0.046	0.061	0.059	0,335	0.039	-11.2%
	Maysan	0.055	0.063	0.077	0.088	0.087	0.094	0.386	0.079	9.1%
	Al Basrah	0.013	0.016	0.016	0.014	0.017	0.017	0.316	0.016	4.6%
	Total	2.02	1.89	1.81	1.97	1.85	1.88	1.01	1.78	-42.9%

					(Million Hectares)			Forecast	Change from 5-Year Average	
Barle	ey Area Fo	recast	: MY 20	2004/05						
Region		2002/03	2003/04		2005/06	2006/07	2007/08	2008/09	5-Year Average	Difference 5-Year Avg
North	A'bil	0.110	0.149	0:086	0.271	0.243	0.250	0.022	0.161	-86.5%
	Dahuk	0.032	0.039	0.027	0.037	0.041	0.050	0.009	0.034	-72.2%
	As Sulaymaniyah	0.122	0.043	0.052	0.125	0.108	0.110	0.051	0.087	-41.2%
	Ninawa	0.653	0.525	0.529	0.614	0.595	0.615	0.029	0.509	-94.2%
Central	A: Ta'min	0.025	0.038	0.010	0.023	0.029	0.030	0.015	0.024	-38.4%
	Diyala	0.023	0.095	0.038	0.037	0.035	0.035	0.034	0.042	-19.5%
	Salah ad Din	0.016	0.030	0.039	0.028	0.015	0.015	0.020	0.023	-15.6%
	Baghdad	0.035	0.033	0.005	0.008	0.006	0.005	0.009	0.010	-9.1%
	Babil	0.012	0.017	0.021	0.020	0.024	0.025	0.020	0.020	2,1%
	Wasit	0.048	0.047	0.055	0.069	0.063	0.060	0.053	0.056	-6.8%
	A Qadisiyah	0.043	0:085	0.078	0.077	0.080	0.080	0.080	0.075	7.3%
	Karbala	0.002	0.001	0.002	0.002	0.003	0.003	0.002	0.002	-6.1%
	A Anbar	0.002	0.003	0.003	0.002	0.003	0.003	0.003	0.003	2.4%
	An Najaf	0.001	0.001	0.002	0.002	0.002	0.002	0.001	0.002	-8.3%
	A Muthanna	0.023	0.033	0.038	0.023	0.027	0.025	0.028	0.028	-0.9%
South	Dhi Qar	0.043	0.043	0.064	0.082	0.075	0.075	0.059	0.063	-6.4%
	Maysan	0.030	0.038	0.066	0.071	0.065	0.065	0.060	0.056	6.6%
	A Rasrah	กกาя	0.007	0.006	0.005	0.006	0.005	0.007	በ በበቡ	4.1%
	Total	1.20	1.23	1.12	1.50	1.42	1.45	0.50	1.20	-58.2%

Data Sources: AWiFS IRS-P6, Quickbird, MODIS imagery. COSIT time series crop statistics. Not Official USDA

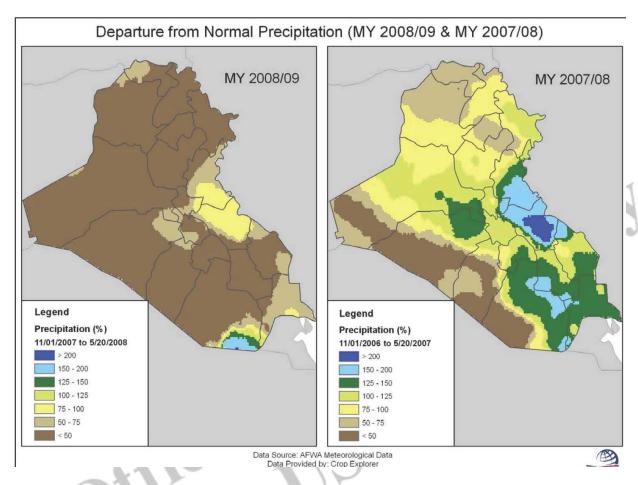
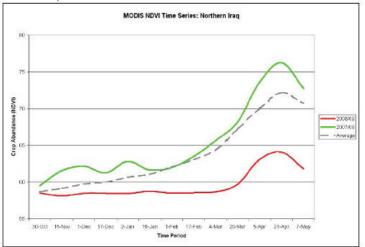
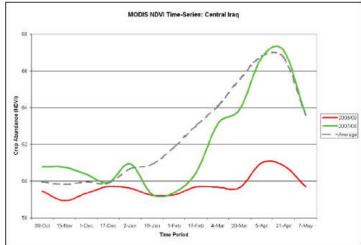
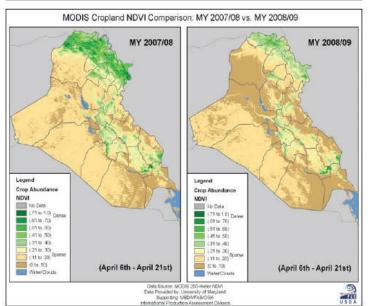


Figure 1: Departure from normal cumulative precipitation: MY 2008/09 and MY 2007/08.







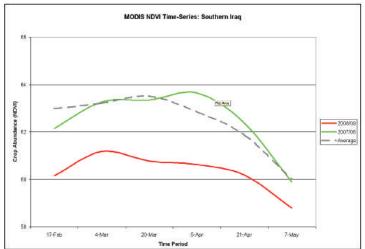


Figure 2: Regional NDVI time series: MY 2008/09, MY 2007/08, and 9-year average.



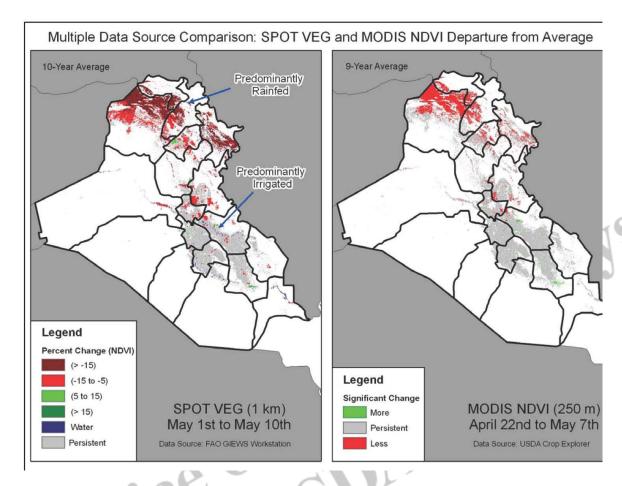


Figure 3: NDVI departure from average: SPOT VEG and MODIS NDVI comparison.

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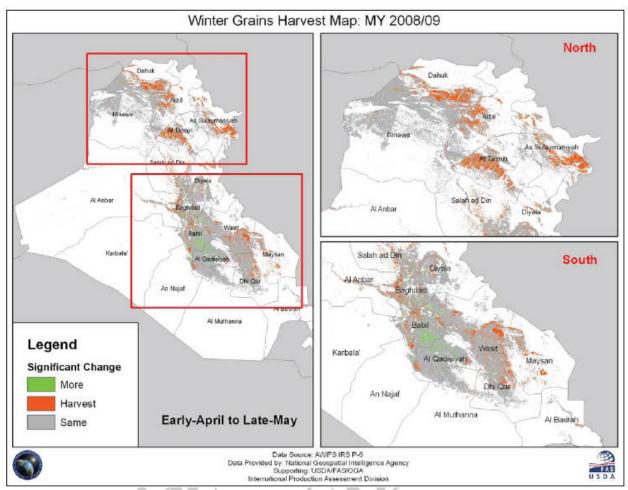


Figure 4: Winter grains harvest map: derived from change in NDVI between early-April and late-May.